

REMARKS

Claims 44-77 are in the case and presented for reconsideration.

Claims 44-52, 54-58, 60-64, 70 and 72-77 have been withdrawn as directed to a non-elected specie under examination.

Claim 53 is generic and claims 53, 59, 65-69 and 71 are directed to the elected specie under examination.

Rejections under 35 U.S.C. § 102

Claims 53, 59, 66 and 71 were rejected under 35 U.S.C. § 102 (b) as being anticipated by U.S. Pat. No. 5,684,071 issued to Mogami et al. (hereinafter '071). Applicants respectfully traverse this rejection.

U.S. Pat. No. 5,684,071 discloses an additive for thermoplastic resins which demonstrates improved dispersibility into the thermoplastic resins and which improves flame resistance. The additive is a nitrogen-containing heterocyclic compound that has been surface-treated with a compound having at least two functional groups. The nitrogen-containing heterocyclic compounds are five and six member heterocyclic compounds and further teaches that the six-membered heterocyclic compounds are selected from oxazine, thiazine, pyridazine, pyrimidine, pyrazine, triazine, tetrazine and their derivatives. The compound having at least two functional groups are selected from an epoxy group, an acid anhydride group, isocyanate group, oxazoline group, or a carbodiimido group.

Applicants' claimed invention is for a polyester composition having (a) a polyester and (b) at least one additive of the specified formulae that is capable of reacting with acetaldehyde to form a new carbon-carbon bond. It is well established that for a reference to anticipate a claim under 35 U.S.C. § 102 a single reference must set forth each and every element as set forth in the claimed invention, see MPEP part 2100 (8th ed. 3rd rev. 2005). The '071 patent does not disclose an additive of the specified formulae having an active methylene moiety that is capable of reacting with acetaldehyde to form a new carbon-carbon bond. This is not taught or suggested by

the '071 patent. Thus, the '071 patent does not anticipate the presently claimed invention.

The examiner maintains that the '071 patent discloses a polyester composition that includes barbituric acid and its derivatives and specifically identifies column 3, line 50 through column 4, line 35 of the '071 patent since the '071 patent discloses the use of a pyrimidine compound and barbituric acid is a pyrimidine compound.

Applicants respectfully submit that the '071 patent does not disclose the specie barbituric acid and its derivatives and therefore does not anticipate the claimed invention. Although the '071 patent teaches in column 3, lines 50-55 that the nitrogen-containing compounds are five and six membered heterocyclic compounds and further teaches that the six-membered heterocyclic compounds are selected from oxazine, thiazine, pyridazine, pyrimidine, pyrazine, triazine, tetrazine and their derivatives, there is nothing within this broad listing of genus compounds that specifically identifies or would teach someone to use the specie barbituric acid or its derivatives. It is well established that the disclosure of a genus does not anticipate a specie within that genus unless the specie is clearly named, MPEP 2131 (8th ed., 3rd rev. 2005) and cases cited therein. Applicants submit that the '071 patent does not disclose the claimed barbituric acid and its derivatives of independent claim 53 since pyrimidine compounds and their derivatives are quite numerous one would have to experiment with a large number of possible compounds within that genus to derive the presently claimed invention. Accordingly, the '071 patent would not anticipate the presently claimed invention.

Lastly, Applicants maintain that the '071 patent does not anticipate the presently claimed invention of a polyester composition having at least one cyclic compound with an active methylene capable of reacting with acetaldehyde. The examiner, referring to column 4, lines 1-35 of the '071 patent, notes that the Applicants have no support that the nitrogen-containing compounds of Formula II is incorrectly represented; specifically, the "C-R⁵" of Formula II should be --N-R⁵--. Applicants respectfully disagree.

It is well accepted that inventors can be their own lexicographer, defining terms within the specification to have a specialized meaning for limiting the description or clarity of the claims so long as the patentee remains consistent in their use, MPEP

2111.01 (8th ed., 3rd rev. 2005) and cases cited therein. Absent such special definitions, terms within the patent are understood to have their usual and accepted meaning and construction. Referring to Formula (1) and (III) of the '071 patent, Applicant directs the examiner's attention to the number of bonds represented by all the carbons, nitrogens and R groups appearing therein. It is noted that all carbons have 4 bonds, nitrogens 3 and R groups have 1. However, in Formula (II) the carbon associated with R⁵ has only 3 bonds, which is completely contrary to accepted depiction for carbon bonds by those skilled in the art and is further contrary to the methodology used by the inventor himself. Applicants have reviewed several text related to the art and have been unable to locate any discussion of a trivalent carbon and respectfully request the examiner to provide a printed publication where such trivalent carbon is discussed and compounds formed from them.

Moreover the '071 patent teaches in column 4, lines 34-36 that representative compounds of Formula II are cyanuric acid, isocyanuric acid, triphenyl cyanurate, and triphenylisocyanurate, all of which would require the "C-R⁵" depicted in Formula II to be -N-R⁵-. Clearly, given the methodology by which Mogami et al. represents such chemical formulae, there is no basis to derive barbituric acid and its derivatives from the teachings of the '071 patent.

For the reasons presented above, Applicants respectfully submit that claim independent claim 53 and dependent claims 59, 66 and 71 are not anticipated by U.S. Pat. No. 5,684,071 and request the rejection be withdrawn.

Rejections under 35 U.S.C. § 103

Claims 65-69 were rejected under 35 U.S.C. § 103 (a) as being obvious over Mogami et al. ('071) as applied above and further in view of Sargeant et al. (U.S. 6,593,406) and Igrashi et al. (U.S. 4,837,115). Applicant respectfully traverses this rejection.

As noted above, independent claim 53 is patentably distinguishable over the cited references. Therefore, dependent claims 65-69 (which depend from claim 53) would also be patentably distinguishable over the cited references.

Additionally, the '071 patent teaches a thermoplastic resin having a five or six membered nitrogen containing compound, wherein the six membered nitrogen containing compound is selected from oxazine, thiazine, pyridazine, pyrimidine, pyrazine, triazine, tetrazine and their derivatives which is then functionalized by an additional compound having at least two functional groups. The '071 patent does not teach or suggest the presently claimed invention of a polyester compound having at least one cyclic compound with an active methylene capable of reacting with acetaldehyde to form a new carbon-carbon bond. The examiner notes that Igarashi et al. (USPN 4,837,115) teaches that amino group containing compounds may be used to scavenge acetaldehyde in polyester compositions. Applicants submit that the examiner is not considering the instantly claimed invention as a whole. Specifically, one skilled in the art would not derive the presently claimed invention by combining the teachings of '071 with the '406 patent and the '115 patent either alone or in any combination.

The '071 patent in combination with Igarashi et al. would not teach or suggest to one skilled in the art to modify the '071 patent to derive the claimed invention of a polyester having at least one additive having an active methylene moiety that is capable of reacting with acetaldehyde to form a new carbon-carbon bond.

Igarashi et al teach in column 3, lines 5-20 a linear compound having a terminal amino group wherein the terminal amino acts as an agent for reducing the aldehyde concentration. Igarashi et al do not teach or suggest using an active methylene moiety which forms a new carbon-carbon bond. Igarashi et al also teach that it is necessary for the terminal amino group concentration to be 0.05 to 50 millimoles per 100 grams of resin, something completely irrelevant to the presently claimed invention particularly since the claimed barbituric acid and its derivatives do not have any free amine groups to react with acetaldehyde. Accordingly, the combination of the '071 patent and the '115 patent would not suggest the presently claimed invention.

Applicants further submit that the combination of Mogami et al. ('071) in view of Sargeant et al. (U.S. 6,593,406) and Igrashi et al. (U.S. 4,837,115) does not teach or suggest the present invention. As noted above Mogami et al. in view of Igrashi et al. (U.S. 4,837,115) does not teach or suggest the present invention. Applicants submit

that Sargeant et al. does not motivate one skilled in the art to modify the teaching of either Mogami et al or Igrashi et al., either alone or in combination to derive the present invention. The '406 patent discloses PET having UV light absorbing compounds and radical scavenging hindered amine light stabilizing compounds (HALS) but does not teach or suggest polyester compound having at least one cyclic compound with an active methylene capable of reacting with acetaldehyde. Accordingly the combination of Mogami et al. in view of Sargeant et al. and Igrashi et al. would not suggest the a polyester having at least one additive having an active methylene moiety capable of reacting with acetaldehyde to form a new carbon-carbon bond.

Nor does the combination of the '071 patent with the '406 and the '115 patents suggest the presently claimed invention since none of the cited patents teach or suggest using any of the compounds utilized by Applicants.

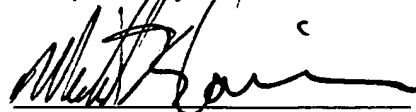
For the reasons above, Applicants submit that claims 65-69 are patentably distinguishable over U.S. 5,684,071 in view of U.S. 6,593,406 and U.S. 4,837,115. Applicants respectfully request that the 35 U.S.C. § 103 (a) rejection be withdrawn.

Accordingly, Applicants submit that claims 53, 59, 65-69 and 71 are patentably distinguishable over U.S. Pat. Nos. 5,684,071; 6,593,406; and 4,837,115 and respectfully request that the 35 U.S.C. §§ 102(b) and 103(a) rejections be withdrawn and the application be passed to allowance at the examiner's earliest convenience.

No Fee is believed to be due. However, the Commissioner is hereby authorized to charge any deficiency or credit any overpayment in fees to Deposit Account No. 05-0221.

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Respectfully submitted,

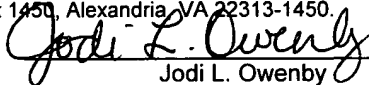


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Jodi L. Owenby

August 1, 2006
Date